

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2005/000342

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16L37/08 F16L37/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 244 608 A (STUEMKY ET AL) 13 January 1981 (1981-01-13) figures	1-15
X	US 5 104 158 A (MEYER ET AL) 14 April 1992 (1992-04-14) figures	1-3, 5-15
A	EP 0 521 776 A (AUTOMOBILES PEUGEOT; AUTOMOBILES CITROEN) 7 January 1993 (1993-01-07) figures	1-15
X	US 5 860 681 A (SLAIS ET AL) 19 January 1999 (1999-01-19) figures	1-4, 7, 8, 13, 14

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

11 May 2005

Date of mailing of the international search report

25/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Budtz-Olsen, A

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2005/000342

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DE 38 10 385 A1 (DAIMLER-BENZ AG, 7000 STUTTGART, DE; DAIMLER-BENZ AKTIENGESELLSCHAFT,) 16 March 1989 (1989-03-16) figures</p> <p>-----</p>	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2005/000342

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4244608	A	13-01-1981	NONE	
US 5104158	A	14-04-1992	US 5052725 A AU 644776 B2 AU 4491789 A CA 2001973 A1 DE 68917739 D1 DE 68917739 T2 EP 0462971 A1 JP 2977572 B2 JP 4506555 T WO 9010814 A1	01-10-1991 23-12-1993 09-10-1990 13-09-1990 29-09-1994 02-02-1995 02-01-1992 15-11-1999 12-11-1992 20-09-1990
EP 0521776	A	07-01-1993	FR 2678706 A1 DE 69207825 D1 EP 0521776 A1	08-01-1993 07-03-1996 07-01-1993
US 5860681	A	19-01-1999	AT -- 196538 T DE 69518894 D1 DE 69518894 T2 EP 0713994 A1 ES 2150537 T3 JP 2832813 B2 JP 8233160 A PL 311449 A1	15-10-2000 26-10-2000 26-04-2001 29-05-1996 01-12-2000 09-12-1998 10-09-1996 27-05-1996
DE 3810385	A1	16-03-1989	NONE	